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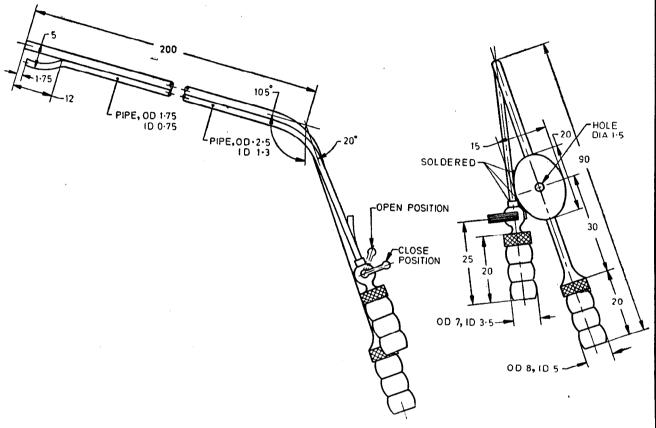




### Indian Standard

# SPECIFICATION FOR CANNULA, SUCTION IRRIGATION WITH LOCKING DEVICE, MICROLARYNGEAL

- 1. Scope Specifies dimensional and other requirements for suction irrigation cannula with locking device used in microlaryngeal surgical operation.
- 2. Shape and Dimensions As shown in Fig. 1.



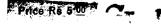
All dimensions in millimetres.

FIG. 1 CANNULA, SUCTION IRRIGATION WITH LOCKING DEVICE, MICROLARYNGEAL

- **2.1** A deviation of  $\pm$  2.5 percent shall be allowed on all dimensions.
- 2.2 A deviation of  $\pm$  2.5° shall be allowed on all angles.
- 3. Material Stainless steel conforming to Designation 04Cr18Ni10 or 07Cr18Ni19 of Schedule V of IS: 1570 (Part V)-1972 'Schedule for wrought steel: Part V Stainless and heat resisting steels (first revision)' or brass conforming to Designation CuZn37 or CuZn40 of IS: 410-1967 'Specification for rolled brass plate, sheet, strip and foil (second revision)'.
- 4. Workmanship and Finish
- 4.1 The cannula shall be free from scales, pits, burrs and other surface defects.
- 4.2 The hole in the cannula shall be well formed.

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- 4.3 The brazing or soldering shall be neat and sound and shall be free from holes when tested as mentioned in 5.1.
- 4.4 The locking device shall operate accurately.
- 4.5 The cannula if made of stainless steel shall be dull matt finished and passivated.
- **4.6** The cannula if made of brass shall be coated nickel and chromium conforming to Grade 2 of IS: 4827-1968 'Specification for electroplated coatings of nickel and chromium on copper and copper alloys'.

#### 5. Tests

- 5.1 Leakage The brazed or soldered portion of the cannula shall be immersed in boiling paraffin wax for 2 minutes. There shall not be any air bubble visible on the surface of the liquid.
- 5.2 The cannula if made of stainless steel shall be subjected to any one of the tests given in 5.2.1 or 5.2.2.
- **5.2.1** Copper sulphate test The cannula shall be scrubbed with soap and warm water, rinsed in hot water, followed by a dip in 95 percent ethyl alcohol and dried. The cannula shall be completely immersed in copper sulphate solution at room temperature for 6 minutes and then washed off with fresh water. The copper sulphate solution shall be made up as follows:

Copper sulphate ( CuSO <sub>4</sub> .5H <sub>2</sub> O )	4·0 g
Sulphuric acid ( H <sub>2</sub> SO <sub>4</sub> ) ( sp gr 1.84 )	10 <sup>.</sup> 0 g
Water (H <sub>2</sub> O)	90 ml

There shall not be any red stains or spot on the cannula after the test.

- 5.2.2 Corrosion resistance Test the suction irrigation cannula in accordance with IS: 7531-1975 'Method for boiling and autoclaving test for corrosion resistance of stainless steel surgical instruments'. There shall not be any sign of corrosion visible after the completion of the test.
- 6. Marking The suction irrigation cannula shall be marked with the manufacturer's name, initials or recognized trade-mark, size, the country of manufacture and the words 'SS' if made of stainless steel.
- 6.1 ISI Certification Marking Details available with the Indian Standards Institution.
- 7. Packing The suction irrigation cannula shall be wrapped in moisture-proof paper or packed in polyethylene bags avoiding contact with one another. The suction irrigation cannula may also be packed as agreed to between the purchaser and the supplier.